

REMARKS

Amendments to the Claims

Applicants presently cancel system claims 11-20 and computer program product claims 21-30, leaving only method claims in the present application. In amending the claims in the present application, Applicants do not concede that the claims as originally filed were not in a condition for allowance nor do these cancellations represent a disclaimer of the recited subject matter. Rather, Applicants reserve the right to pursue these cancelled system and product claims in one or more continuation applications. Applicants believe themselves entitled to pursue these claims in additional applications because the system and product claims are directed to an invention in a different statutory category than are the method claims that remain in this application. Applicants believe they are entitled to have claims directed to inventions in separate statutory categories issued in separate patents.

Applicants amend claim 1 of the present application to include limitations previously found in dependent claim 8 of Applicants' original application. As such, claim 8 is cancelled in this Response. Applicants further amend claim 1 to include the limitation "the web services intermediary includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary." Support for this amendment is found in Applicants' original specification at page 11, lines 22-25. Applicants submit that these amendments do not introduce any new matter into the specification and submit that the claims as currently amended are in condition for allowance.

Claim Rejections - 35 U.S.C. § 102 Over Sharma

In the Office Action, claims 1-6, 10-16, 20-26, and 30 stand rejected under 35 U.S.C. § 102 as being anticipated by Sharma, *et al.* (U.S. Publication No. 2003/0204645) (hereafter, 'Sharma'). As discussed above, claims 8 and 11-30 are cancelled in this

Response. To anticipate the remaining claims of the present application under 35 U.S.C. § 102, Sharma must disclose and enable each and every element and limitation recited in the claims of the present application. As presently amended, claim 1 now includes limitations previously found in dependent claim 8 of Applicants' original application. The Office Action admits at page 9 that Sharma does not disclose all of the limitations previously found in dependent claim 8 of Applicants' original application. The limitations of former claim 8 are now recited in newly amended claim 1 – so that Sharma can no longer be said to disclose all the elements of claim 1. Because Sharma does not disclose and enable each and every element and limitation of amended claim 1, Sharma does not anticipate claim 1 of the present application. The rejection of claim 1 under 35 U.S.C. § 102 should be withdrawn.

Relations Among Claims

Claims 2-6 and 10 depend from independent claim 1. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Sharma does not disclose or enable each and every element of independent claim 1, Sharma also does not disclose or enable each and every element of the dependent claims of the present application. As such, claims 2-6 and 10 are also patentable and should be allowed.

Claim Rejections – 35 U.S.C. § 103 Sharma In View Of Brittenham

The Office Action rejects claims 7-9, 17-19, and 27-29 for obviousness under 35 U.S.C. § 103 as being unpatentable over Sharma in view of Brittenham, *et al.* (U.S. Patent Publication No. 2002/0178214) (hereafter, 'Brittenham'). As discussed above, claims 8, 17-19, and 27-29 are cancelled in this Response, and the limitations previously found in claim 8 have been incorporated into claim 1 by amendment. The question of whether the remaining claims in the present application are obvious or not is examined in light of: (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, including commercial success, long felt but unsolved needs, and failure of others. *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 2 (U.S. April 30, 2007).

Although Applicants recognize that such an inquiry is an expansive and flexible one, the Office Action must nevertheless demonstrate a prima facie case of obviousness to reject Applicants' claims for obviousness under 35 U.S.C. § 103(a). *In re Khan*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). Independent claim 1 of the present application, as currently amended, recites:

1. A method of port type agnostic proxy support for web services intermediaries, the method comprising:

receiving in a web services intermediary a request for execution of a web services operation, wherein:

the web services intermediary includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary; and

the request includes parametric information from which an endpoint for a target service that supports the operation is can be identified;

identifying, by the web services intermediary in dependence upon the parametric data, the endpoint for a target service that supports the operation;

creating, by the web services intermediary, a target service request for execution of the operation on the target service, further comprising:

composing the request in a data structure useful in a binding-neutral interface; and

calling the binding-neutral interface, passing the request as a call parameter; and

issuing, by the web services intermediary, the target service request to the target service.

As shown below in more detail, the combination of Sharma and Brittenham cannot be used to establish a prima facie case of obviousness against the claims of the present application because the combination of Sharma and Brittenham does not teach or suggest each and every element of claim 1 of the present application.

The Combination Of Sharma And Brittenham Does Not Teach Or Suggest The Web Services Intermediary Includes A Proxy, Wherein No Configuration Data Available To The Proxy Describes An Endpoint Of The Target Service And The Requester Submits Requests For Operations In Port Types Completely Unknown To The Intermediary

Claim 1 of the present application is currently amended to include the following limitation: the web services intermediary includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary. The proposed combination of Sharma and Brittenham neither teaches nor suggests any of this limitation.

Sharma generally discloses enabling a computing system to layer the packaging and deployment of a web service endpoint on a standard servlet component model. Sharma does not teach or suggest, however, the web services intermediary includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary as claimed in amended claim 1 of the present application. Sharma, at paragraph 0028, discloses a method in which the requestor knows the port type of the target service, stating that the “client may import the WSDL description to

obtain protocol binding and service description information associated with the defined service endpoint. The client may generate a call request to invoke one or more methods on the defined service endpoint based on the information contained in the imported WSDL document.”

Furthermore, Sharma does not teach or suggest the limitation that no configuration data available to the proxy describes an endpoint of the target service at any point in Sharma’s disclosure. Sharma merely discloses a stub classes and dynamic proxy classes that support a service endpoint interface without disclosing that configuration data describing the endpoint is unavailable to the dynamic proxy. As such, Sharma cannot be said to teach or suggest a web services intermediary that includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary as claimed in amended claim 1 of the present application.

In addition to the fact that Sharma does not teach or suggest the limitations of amended claim 1 in the present application, Brittenham also does not teach or suggest the limitations of amended claim 1 in the present application. Brittenham generally discloses improving network operations by dynamically undeploying services in a computing network. Brittenham does not teach or suggest, however, the web services intermediary includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary as claimed in amended claim 1 of the present application. In fact, Brittenham does not even mention the terms “endpoint,” “port,” “port type” at any point in Brittenham – not even once. As such, Brittenham does not teach or suggest a web services intermediary that includes a proxy, wherein no configuration data available to the proxy describes an endpoint of the target service and the requester submits requests for operations in port types completely unknown to the intermediary as claimed in amended claim 1 of the present application. Because the cited combination of Sharma and Brittenham does not teach or suggest each and every element and limitation of Applicants’ claim, the combination of Sharma and Brittenham does not

render Applicants' claim obvious within the meaning of 35 U.S.C. § 103. The rejections under 35 U.S.C. § 103 should therefore be withdrawn.

Brittenham Does Not Teach Or Suggest A Binding Neutral Interface As Claimed In The Present Application

Claim 1 of the present application is amended to include the following limitations previously found in dependent claim 8 of Applicants' original application: creating a target service request further comprising composing the request in a data structure useful in a binding-neutral interface, and calling the binding-neutral interface, passing the request as a call parameter. The Office Action takes the position that Brittenham at paragraph 0007 teaches or suggest the limitations of former claim 8. Applicants respectfully note in response, however, that what Brittenham at paragraph 0007 actually discloses is:

[0007] Web services will facilitate "just-in-time" application integration via open web-based standards, such as HTTP ("Hypertext Transfer Protocol"), SOAP ("Simple Object Access Protocol") and/or XML ("Extensible Markup Language") Protocol, WSDL ("Web Services Description Language"), and UDDI ("Universal Description, Discovery, and Integration"). HTTP is commonly used to exchange messages over TCP/IP ("Transmission Control Protocol/Internet Protocol") networks such as the Internet. SOAP is an XML-based protocol used to invoke methods in a distributed environment. XML Protocol is an evolving specification of the World Wide Web Consortium ("W3C") for an application-layer transfer protocol that will enable application-to-application messaging. XML Protocol may converge with SOAP. WSDL is an XML format for describing distributed network services. UDDI is an XML-based registry technique with which businesses may list their services and with which service requesters may find businesses providing particular services. Just-in-time application integration will be possible by issuing UDDI requests to locate distributed services through a UDDI registry, and dynamically binding the requester to a located service using service information which is conveyed in a platform-neutral WSDL format using SOAP/XML Protocol and HTTP messages. (Hereinafter, references to SOAP should be construed as referring equivalently to semantically similar aspects of XML Protocol.) Using these components, web services will provide requesters with transparent access to program components which may reside in one or more remote locations, even though those components might run on different operating systems and be written in

different programming languages than those of the requester. (For more information on SOAP, refer to <http://www.w3.org/TR/2000/NOTE-SOAP-20000508>, titled "Simple Object Access Protocol (SOAP) 1.1, W3C Note May 8, 2000". See <http://www.w3.org/2000/xp> for more information on XML Protocol. More information on WSDL may be found at <http://www.w3.org/TR/2001/NOTE-wsdl-2-0010315>, titled "Web Services Description Language (WSDL) 1.1, W3C Note Mar. 15, 2001". For more information on UDDI, refer to <http://www.uddi.org/specification.html>". HTTP is described in Request For Comments ("RFC") 2616 from the Internet Engineering Task Force, titled "Hypertext Transfer Protocol--HTTP/1.1" (June 1999).)

That is, Brittenham at paragraph 0007 discloses dynamically binding the requester to a located service using service information which is conveyed in a platform-neutral WSDL format using SOAP/XML Protocol and HTTP messages. Brittenham's dynamically binding the requester to a located service using service information which is conveyed in a platform-neutral WSDL format using SOAP/XML Protocol and HTTP messages, however, does not teach or suggest creating a target service request further comprising composing the request in a data structure useful in a binding-neutral interface, and calling the binding-neutral interface, passing the request as a call parameter as claimed here. Brittenham merely discloses utilizing a *platform*-neutral format for passing service information – not composing requests in a *binding*-neutral interface. A 'binding' as claimed in the present application refers to a particular communications protocol and a data format specification for a port type. *See*, Applicants' original specification at page 10, lines 1-5. In contrast to the claims of the present application, Brittenham merely discloses utilizing a platform-neutral format for the purpose of providing "requesters with transparent access to program components which may reside in one or more remote locations, even though those components might run on different operating systems and be written in different programming languages than those of the requester." In fact, Brittenham at the cited reference point discloses that messages are bound to a particular communications protocol and a data format specification, such as SOAP/XML protocol and HTTP messages. Nothing in Brittenham teaches or suggests that requests are ever composed in a binding-neutral format as claimed here. As such, Brittenham does not teach or suggest this claim limitation. Because the combination of Sharma and Brittenham does not teach or suggest each and every limitation of claim 1 of the present

application, the combination of Sharma and Brittenham cannot be used to establish a prima facie case of obviousness and the rejections 35 U.S.C. § 103 should be withdrawn.

Relations Among Claims

Claims 2-7 and 9-10 depend from independent claim 1. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because the combination of Sharma and Brittenham does not teach or suggest each and every element of independent claim 1, the combination of Sharma and Brittenham also does not teach or suggest each and every element of the dependent claims of the present application. As such, claims 2-7 and 9-10 are also patentable and should be allowed.

Conclusion

Claims 1-6 and 10 stand rejected under 35 U.S.C. § 102 as being anticipated by Sharma. Sharma does not disclose each and every element of Applicants' claims. Sharma therefore does not anticipate Applicants' claims. Claims 1-6 and 10 are therefore patentable and should be allowed. Applicants respectfully request reconsideration of claims 1-6 and 10.

Claims 7 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Sharma and Brittenham. The combination of Sharma and Brittenham does not teach or suggest each and every element of Applicants' claims. The combination of Sharma and Brittenham therefore cannot be used to establish a prima facie case of obviousness against Applicants' claims. Claims 7 and 9 are therefore patentable and should be allowed. Applicants respectfully request reconsideration of claims 7 and 9.

The Commissioner is hereby authorized to charge or credit Deposit Account No. 09-0447 for any fees required or overpaid.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'H. Artoush Ohanian', written over a horizontal line.

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